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The SHOSHONE-BANNOCK TRIBES

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HAZARDOUS WASTE PROGRAM
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December 5, 2002

Ms. Linda Meyer, (WCM-121)
Project Manager RCRA/Superfund
U.S. EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101

Subject: FMC and Slag testing

Dear Ms. Meyer:

The Shoshone-Bannock Tribes are very concerned about the slag pile remaining at the FMC plant within the Fort Hall Indian Reservation. Except for a limited amount of off-site sales of this material, FMC site has created and accumulated this by-product on the Fort Hall Reservation for a period of over 50 years, and it has grown to a size of approximately 120 acres (see attached photograph). The ores containing phosphorous materials contain elevated levels of radioactive materials. The manufacturing process at FMC further concentrated the levels of radioactivity in slag. In December of 2001 the FMC facility ceased production of phosphorous at the plant, and slag was no longer produced. However, there remains risks associated with the material, particularly where FMC is aggressively attempting to sell their property for new industrial development, without firmly settled plans to protect tribal members and other citizens from radiation risks posed by slag. The Shoshone-Bannock Tribes have an employment ordinance in place such that Tribal members will undoubtedly be employed at the site when redevelopment occurs.

The *Idaho Radionuclide Study* (1990), concluded that there may be elevated risks of contracting cancer from long-term exposure to slag. This study was reviewed by the *Science Advisory Board* and in order to reduce the risks posed by slag, EPA lead a group to develop "Graded Decision Guidelines".

The Shoshone-Bannock Tribes are concerned because the slag pile is of extraordinary size, and has not been tested for radioactivity for over ten years. In the production of elemental phosphorous FMC has utilized different ore sources over the years with varying radioactivity levels and consequently the resultant slag pile may have gained in radioactivity levels since last tested in the 1980's.

As EPA proceeds through the CERCLA (superfund) process at FMC, the Shoshone-Bannock Tribes maintain that the slag pile should be re-tested, by an independent contractor, for radiation levels. We recommend that, given the large size of the slag pile, a GPS-based grid be set up and radiation levels be tested at frequent intervals on the slag pile using a hand-held Pressurized Ionization Chamber (PIC) instrument. Since the pile is several meters thick, we also propose that some samples be taken from bore-holes to varying depths. A small percentage of the samples should be sent to a radiation laboratory to determine the gross alpha, gross beta, and gamma levels. The radiation isotopes should be identified by the lab, including, but not limited to, Radium, Polonium, Cesium, Polonium, and Lead. Radon gas may be present in the slag pile and we recommend that samples be taken to detect the presence of this gas. The results of this study could be beneficial to EPA's effort to design an appropriate remedy for the slag pile.

The Shoshone-Bannock Tribes are also concerned about groundwater and stormwater contamination which may arise from the slag pile. The increased depth and surface area of the slag, combined with possible changes in ore sources over the years may have increased the solubility of contaminates in the slag pile. These contaminates could end up in the ground or surface water, particularly after an above average precipitation year. We therefore recommend that testing, by an independent contractor, be done to determine the levels of radionuclides, heavy metals, and other contaminates that may dissolve as precipitation works its way through the deep slag pile to ground or surface water resources of the Shoshone-Bannock Tribes. The results of this test may assist the EPA, in assessing the need for groundwater controls, or surface water controls, including run-off or run-on (diversion or collection devices) controls at the slag pile.

We also submit at this time that in addition to the earthen and clay cap technology under consideration for the slag pile, EPA include as one of the remediation options, the transfer of the material back to the un-reclaimed mining pits at the Gay Mine, as back-fill, followed by a clay-liner cap.

The above recommendations seem timely since EPA may be revising the Remedial Investigation/ Feasibility Study (RI/FS) at this CERCLA site in the near future.

Your consideration in this strong recommendation for re-testing radioactivity levels, and the potential for ground or surface water contamination at FMC are greatly appreciated.

Sincerely yours,

Roger Turner

Roger Turner,
Interim CERCLA/RCRA Manager

attachment

cc: Gil Hasselberger, Region 10, EPA
Fort Hall Business Council (7)
Alonzo Coby, Interim Land Use Director
Land Use Policy Commission (3)
Jeanette Wolfley, Tribal Attorney